

GB-1937-04

Fig. 1.

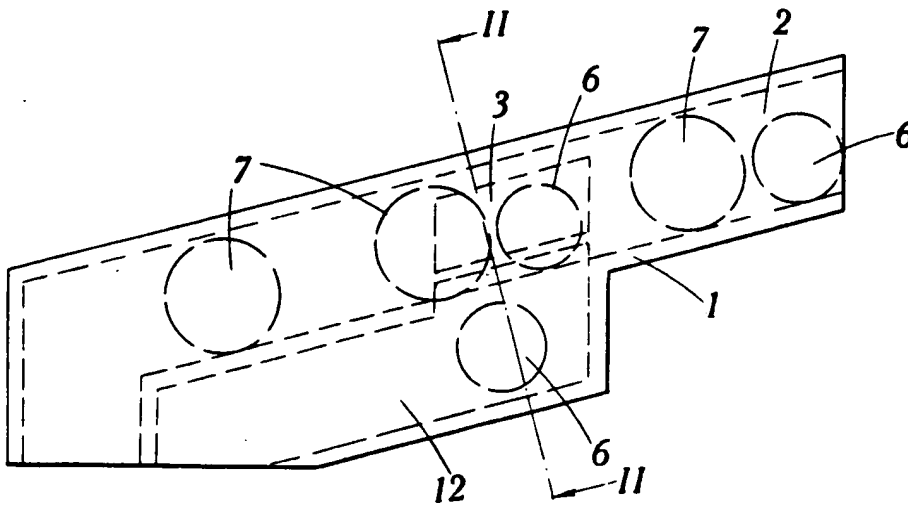
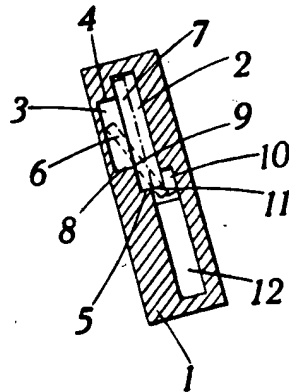


Fig. 2.



[This Drawing is a reproduction of the Original on a reduced scale.]

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133/3.5

PATENT SPECIFICATION

Application Date: Oct. 18, 1935. No. 28868/35.

Complete Specification Left: Sept. 30, 1936.

Complete Specification Accepted: April 19, 1937.



EXAMINER'S

COPY

Div. 4

464,439

PROVISIONAL SPECIFICATION

Improvements relating to Coin Testing and Selecting Devices

We, **RUDOLF SCHNEIDER**, a German citizen, of Chippenham Works, Chippenham, Wiltshire, England, and **WESTINGHOUSE TICKET MACHINE COMPANY LIMITED**, a Company incorporated under the Laws of Great Britain, of 82, York Road, King's Cross, London, England, do hereby declare the nature of this invention to be as follows:—

10 This invention relates to coin testing and selecting devices for separating coins of one diameter from those of a smaller diameter or diameters in a number of coins of various diameters supplied to the device as is required for instance, in coin-
15 freed automatic vending machine, change-giving machines and the like and has for its object to provide an improved device of this character.

20 According to the principal feature of the invention the coins supplied to the device are arranged to pass in single file and with their plane inclined at a suitable angle to the vertical along a track
25 provided with upper and lower guides separated from one another by a distance which is greater than the diameter of the smaller coins so that the latter by their freedom from engagement by the upper
30 guide are permitted to tilt under the action of gravity and are thereby directed downwards into or towards a separate track from that traversed by the coins of large diameter which are prevented from
35 tilting by their engagement with the upper guide.

According to a further feature of the invention the extent to which the coins of smaller diameter are permitted to tilt
40 is arranged to be limited so as to prevent these coins from falling laterally out of the device and according to a still further feature a recess is provided in the upper part of the lower guide so arranged as to
45 facilitate the tilting and separation of the smaller coins.

In a preferred construction of device embodying the invention coins of various diameters are arranged to pass in single
50 file through a downwardly inclined cavity in a guide member the transverse axis of which is slightly inclined to the vertical. The height of this cavity is somewhat

greater than the diameter of the largest coins while its transverse breadth is con- 55 siderably greater than the thickness of any of the coins. At a selected point in the length of the guide member a lateral recess is provided in the downward side of the cavity the upper edge of this recess 60 being separated from the base of the cavity by a distance which is greater than the diameter of the small coins but less than that of the largest coins. The lower edge of the recess is located somewhat 65 above the base of the cavity so as to provide a corner or edge about which the smaller coins can tilt under the action of gravity this tilting being permitted by a recess formed in the upward side of the 70 cavity at the base thereof. An opening is provided in the base of the cavity adjacent to this latter recess leading to a second downwardly inclined cavity provided in the guide member below the main 75 cavity. This second cavity leads to a receptacle for the smaller coins the operation of the device being as follows:—

The coins of various diameters supplied to the device follow one another in the 80 interior of the main cavity rolling or sliding along the base thereof with their faces in contact with the downward side of the cavity. As each coin in succession comes opposite to the recess in the lateral 85 wall of the cavity the large diameter coins continue on their way along the cavity since they cannot tilt into the recess and these coins pass out of the downward end of the cavity into a recep- 90 tacle for the large diameter coins.

Each of the coins of small diameter, however, as it comes opposite to the recess, tilts about the lower corner or edge of the recess above referred to so that the lowest 95 point of the edge of the coin slides laterally over the opening in the base of the cavity and into the lower recess, the coin being thus free to fall into the second or lower cavity along which it is con- 100 ducted to a receptacle for the smaller coins.

The invention is evidently not limited to the particular construction or arrangement above described which may be varied in many respects without exceed- 105 ing the scope of the invention.

[Price 1/-]

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Dated this 17th day of October, 1935.

COPE & CO.,
Agents for the Applicants,
65, Victoria Street, London, S.W.1.

COMPLETE SPECIFICATION

Improvements relating to Coin Testing and Selecting Devices

We, **RUDOLF SCHNEIDER**, a German citizen, of Chippenham Works, Chippenham, Wiltshire, England, and **WESTINGHOUSE TICKET MACHINE COMPANY LIMITED**, a Company incorporated under the Laws of Great Britain, of 82, York Road, King's Cross, London, England, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to coin testing and selecting devices for separating coins of one diameter from those of a smaller diameter or diameters in a number of coins of various diameters supplied to the device as is required, for instance, in coin-freed automatic vending machines, change-giving machines and the like and has for its object to provide an improved device of this character.

In the device of the invention the coins supplied to the device are arranged to pass in single file and with their planes inclined at a suitable angle to the vertical along a track provided with upper and lower guides separated from one another by a distance which is greater than the diameter of the smaller coins so that the latter by their freedom from engagement by the upper guide are permitted to tilt under the action of gravity, while the coins of larger diameter are prevented from tilting by their engagement with the upper guide.

According to the principal feature of the invention the extent to which the coins of smaller diameter are permitted to tilt is arranged to be limited so as to prevent the coin from falling laterally out of the device, the lower edge of a coin, when thus tilted, being arranged to slide laterally over an opening formed in the lower guide so as to direct the coin into a separate track arranged beneath this guide. According to a further feature a recess is provided in the upper part of the lower guide so arranged as to facilitate the tilting and separation of the smaller coins.

The invention is illustrated by way of example in the accompanying drawings, Figure 1 of which is a view in side elevation of a portion of the coin guide of a

machine embodying a coin testing and selecting device constructed in accordance with one form of the invention, Figure 2 being a sectional view on the line II—II of Figure 1.

Referring now to the drawings it will be seen that the coin guide comprises a guide member 1 provided with a longitudinal cavity 2 through which coins of various diameters are arranged to pass in single file the guide member 1 being downwardly inclined with its transverse axis slightly inclined to the vertical as shown in Figure 2. The height of the cavity 2 is somewhat greater than the diameter of the largest coins while its transverse breadth is considerably greater than the thickness of any of the coins. At a selected point in the length of the guide member 1 a lateral recess 3 is provided in the downward side of the cavity 2 the upper edge 4 of this recess being separated from the base 5 of the cavity by a distance which is greater than the diameter of the smaller coins 6 but less than that of the largest coins 7. The lower edge 8 of the recess 3 is located somewhat above the base 5 of the cavity 2 so as to provide a corner or edge 9 about which the smaller coins 6 can tilt under the action of gravity, as shown in Figure 2, this tilting being permitted by a recess 10 formed in the upward side of the cavity at the base thereof. An opening 11 is provided in the base of the cavity 2 adjacent to the recess 3 and leading to a second downwardly inclined cavity 12 provided in the guide member 1 below the cavity 2. The cavity 12 leads to a receptacle for the smaller coins 6 the operation of the device being as follows:—

The coins 6, 7 of different diameters supplied to the device follow one another in the interior of the cavity 2 rolling or sliding along the base 5 thereof with their faces in contact with the downward side of the cavity. As each coin in succession comes opposite to the recess 3 the larger diameter coins 7 continue on their way along the cavity 2 since they cannot tilt into the recess 3 and these coins pass out of the downward end of the cavity into a receptacle for the larger diameter coins.

Each of the coins 6 of small diameter, however, as it comes opposite to the recess

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3, tilts about the corner or edge 9 of the recess 3 so that the lowest point of the edge of the coin 6 slides laterally over the opening 11 in the base of the cavity and into the lower recess 10, the coin being thus free to fall into the lower cavity 12 along which it is conducted to a receptacle for the smaller coins.

The invention is evidently not limited to the particular construction or arrangement above described and illustrated which may be varied in many respects without exceeding the scope of the invention.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A coin testing and selecting device of the kind described comprising a track provided with upper and lower guides separated from one another by a distance which is greater than the diameter of the smaller coins so that the latter by their freedom from engagement by the upper guide are permitted to tilt under the action of gravity in which the extent to which the coins are permitted to tilt is arranged to be limited so as to prevent the coins from falling laterally out of the

device, the lower edge of a coin, when thus tilted, being arranged to slide laterally over an opening formed in the lower guide so as to direct the coin into a separate track arranged below this guide.

2. A device as claimed in Claim 1 in which the coins are arranged to pass along a longitudinal cavity in a guide member, the height of this cavity being greater than the diameter of the smaller coins and the cavity being provided with a lateral recess, for the purpose specified.

3. A device as claimed in claim 2 in which the base of the lateral recess is above the base of the cavity which is provided with a second lateral recess adjacent to its base and opposite to the first recess, this second recess communicating at its base with a second longitudinal cavity in the guide member, for the purpose specified.

4. A coin testing and selecting device constructed arranged and operating substantially as described with reference to the Figures of the accompanying drawings.

Dated this 30th day of September, 1936.

COPE & CO.,

Agents for the Applicants,
65, Victoria Street, London, S.W.1.